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References Cited [Referenced By]

U.S. Patent Documents

4417306Nov., 1983 Citron et al.

5419338May., 1995Sarma et al.

5437285Aug., 1995Verrier et al.

5560368Oct., 1996Berger.

5560370Oct., 1996Verrier et al.

6132381Oct., 2000Forbes et al.

6324423Nov, 2001Callahan and Shell

6577894June, 2003Callahan and Shell

Other References

Reference List

- 1. Algra A, Tijssen JG, Roelandt JR et al. QTc prolongation measured by standard 12-lead electrocardiography is an independent risk factor for sudden death due to cardiac arrest. *Circulation*. 1991;83:1888-1894.
- 2. Algra A. Sudden death. Adv Neurol. 2003;92:221-224.
- 3. Bayes DL, Coumel P, Leclercq JF. Ambulatory sudden cardiac death: mechanisms of production of fatal arrhythmia on the basis of data from 157 cases. *Am Heart J*. 1989;117:151-159.

- 4. Coumel P, Leclercq JF, Leenhardt A et al. Sudden cardiac death, implanted defibrillation, and clinical electrophysiology. *Pacing Clin Electrophysiol*. 1991;14:893-897.
- 5. Coumel P, Leclercq JF, Leenhardt A. Arrhythmias as predictors of sudden death. *Am Heart J.* 1987;114:929-937.
- 6. Coumel P, Leclercq JF, Lucet V. Possible mechanisms of the arrhythmias in the long QT syndrome. *Eur Heart J.* 1985;6 Suppl D:115-129.
- 7. Fauchier L, Maison-Blanche P, Forhan A et al. Association between heart rate-corrected QT interval and coronary risk factors in 2,894 healthy subjects (the DESIR Study). Data from an Epidemiological Study on the Insulin Resistance syndrome. *Am J Cardiol*. 2000;86:557-9, A9.
- 8. Garson A, Jr., Dick M, Fournier A et al. The long QT syndrome in children. An international study of 287 patients. *Circulation*. 1993;87:1866-1872.
- 9. Leclercq JF, Coumel P, Maison-Blanche P et al. [Mechanisms determining sudden death. A cooperative study of 69 cases recorded using the Holter method]. *Arch Mal Coeur Vaiss*. 1986;79:1024-1033.
- 10. Leenhardt A, Extramiana F, Milliez P et al. [New markers for the risk of sudden death: analysis of ventricular repolarization]. *Arch Mal Coeur Vaiss*. 2001;94 Spec No 2:23-30.
- 11. Leenhardt A, Denjoy I, Maison-Blanche P et al. [Present concepts of congenital long QT syndrome]. *Arch Mal Coeur Vaiss*. 2000;93:17-21.
- 12. Lupoglazoff JM, Denjoy I, Guicheney P et al. [Congenital long QT syndrome]. *Arch Pediatr.* 2001;8:525-534.
- 13. Panidis IP, Morganroth J. Sudden death in hospitalized patients: cardiac rhythm disturbances detected by ambulatory electrocardiographic monitoring. *J Am Coll Cardiol*. 1983;2:798-805.
- 14. Schwartz PJ, Wolf S. QT interval prolongation as predictor of sudden death in patients with myocardial infarction. *Circulation*. 1978;57:1074-1077.
- 15. Yi G, Guo XH, Reardon M et al. Circadian variation of the QT interval in patients with sudden cardiac death after myocardial infarction. *Am J Cardiol*. 1998;81:950-956.

- 16. Algra A, Tijssen JG, Roelandt JR et al. QTc prolongation measured by standard 12-lead electrocardiography is an independent risk factor for sudden death due to cardiac arrest. *Circulation*. 1991;83:1888-1894.
- 17. Yelamanchi VP, Molnar J, Ranade V et al. Influence of electrolyte abnormalities on interlead variability of ventricular repolarization times in 12-lead electrocardiography. *Am J Ther*. 2001;8:117-122.
- 18. Coumel P, Fayn J, Maison-Blanche P et al. Clinical relevance of assessing QT dynamicity in Holter recordings. *J Electrocardiol*. 1994;27 Suppl:62-66.
- 19. Coumel P, Leclercq JF, Naditch L et al. Evaluation of drug-induced QT interval modifications in dynamic electrocardiography: the case of bepridil. *Fundam Clin Pharmacol*. 1993;7:61-68.
- 20. Morganroth J, Hunt T, Dorr MB et al. The effect of terfenadine on the cardiac pharmacodynamics of sparfloxacin. *Clin Ther.* 1999;21:1514-1524.
- 21. Morganroth J, Hunt T, Dorr MB et al. The cardiac pharmacodynamics of therapeutic doses of sparfloxacin. *Clin Ther.* 1999;21:1171-1181.
- 22. Morganroth J, Horowitz LN. Flecainide: its proarrhythmic effect and expected changes on the surface electrocardiogram. *Am J Cardiol*. 1984;53:89B-94B.
- 23. Gallik DM, Singer I, Meissner MD et al. Hemodynamic and surface electrocardiographic effects of a new aqueous formulation of intravenous amiodarone. *Am J Cardiol*. 2002;90:964-968.
- 24. Molnar J, Weiss JS, Rosenthal JE. Does heart rate identify sudden death survivors? Assessment of heart rate, QT interval, and heart rate variability. *Am J Ther*. 2002;9:99-110.
- 25. Molnar J, Zhang F, Weiss J et al. Diurnal pattern of QTc interval: how long is prolonged? Possible relation to circadian triggers of cardiovascular events. *J Am Coll Cardiol*. 1996;27:76-83.
- 26. Molnar J, Weiss J, Zhang F et al. Evaluation of five QT correction formulas using a software-assisted method of continuous QT measurement from 24-hour Holter recordings. *Am J Cardiol*. 1996;78:920-926.
- 27. Coumel P. Diagnostic and prognostic values and limitations of Holter monitoring. Eur Heart J. 1989;10 Suppl E:19-30.

- 28. Coumel P, Zimmermann M. [Value of Holter monitoring in the understanding of arrhythmias]. Schweiz Rundsch Med Prax. 1986;75:1085-1089.
- 29. Coumel P, Leclercq JF, Slama R. [Computer analysis of ambulatory electrocardiograms. Electrophysiological value of the Holter method]. *Ann Med Interne (Paris)*. 1986;137:632-638.
- 30. Coumel P, Milosevic D, Rosengarten M et al. [The theoretical and practical advantage of Holter's monitoring in sino-auricular block (author's transl)]. *Ann Cardiol Angeiol (Paris)*. 1980;29:19-22.
- 31. Coumel P, Slama R. [The Holter technic: why do we use it?]. *Acta Cardiol*. 1980;35:169-177.
- 32. Leclercq JF, Maison-Blanche P, Cauchemez B et al. [Block of the atrioventricular trunk: diagnosis of the site by Holter monitoring]. *Arch Mal Coeur Vaiss*. 1985;78:1781-1786.
- 33. Leclercq JF, Coumel P. [Detection of rhythm and conduction disorders by long-term electrocardiographic recording. Holter technic]. *Nouv Presse Med.* 1982;11:17-19.
- 34. Lupoglazoff JM, Denjoy I, Berthet M et al. [T wave abnormalities on Holter monitoring of congenital long QT syndrome: phenotypic marker of a mutation of LQT2 (HERG)]. *Arch Mal Coeur Vaiss*. 2001;94:470-478.
- 35. Molnar J, Weiss J, Zhang F et al. Evaluation of five QT correction formulas using a software-assisted method of continuous QT measurement from 24-hour Holter recordings. *Am J Cardiol*. 1996;78:920-926.
- 36. Yanaga T, Adachi M, Sato Y et al. Computer analysis of Holter electrocardiogram. Fukuoka Igaku Zasshi. 1994;85:282-286.
- Callahan T, Shell W. Quantitative Method and Apparatus For Measuring QT Intervals From Ambulatory Electrocardiographic Recodings. patent 6324,423. 2001 Nov 2001.
- 38. Algra A, Tijssen JG, Roelandt JR et al. QTc prolongation measured by standard 12-lead electrocardiography is an independent risk factor for sudden death due to cardiac arrest. *Circulation*. 1991;83:1888-1894.
- 39. Schwartz PJ, Wolf S. QT interval prolongation as predictor of sudden death in patients with myocardial infarction. *Circulation*. 1978;57:1074-1077.

- 40. Schwartz PJ, Periti M, Malliani A. The long Q-T syndrome. *Am Heart J*. 1975;89:378-390.
- 41. Schwartz PJ, Priori SG, Spazzolini C et al. Genotype-phenotype correlation in the long-QT syndrome: gene-specific triggers for life-threatening arrhythmias. *Circulation*. 2001;103:89-95.
- 42. Sawicki PT. Mortality in diabetic nephropathy: the importance of the QT interval. *Nephrol Dial Transplant*. 1996;11:1514-1515.
- 43. Sawicki PT, Dahne R, Bender R et al. Prolonged QT interval as a predictor of mortality in diabetic nephropathy. *Diabetologia*. 1996;39:77-81.
- 44. Yi G, Guo XH, Reardon M et al. Circadian variation of the QT interval in patients with sudden cardiac death after myocardial infarction. *Am J Cardiol*. 1998;81:950-956.
- 45. Browne KF, Zipes DP, Heger JJ et al. Influence of the autonomic nervous system on the Q-T interval in man. *Am J Cardiol*. 1982;50:1099-1103.
- 46. Kautzner J, Hartikainen JE, Heald S et al. The effects of reflex parasympathetic stimulation on the QT interval and QT dispersion. *Am J Cardiol*. 1997;80:1229-1232.
- 47. Kautzner J, Camm AJ. Clinical relevance of heart rate variability. *Clin Cardiol*. 1997;20:162-168.
- 48. Abadie E, Leclercq JF, Fisch A et al. [Pathogenesis of tachycardia in hyperthyroidism. Value of Holter monitoring and the use of a beta-blocker]. *Presse Med.* 1985;14:197-199.
- 49. Badilini F, Maison-Blanche P, Champomier P et al. Frequency-domain heart rate variability in 24-hour Holter recordings: role of spectral method to assess circadian patterns and pharmacological autonomic modulation. *J Electrocardiol*. 2000;33:147-157.
- 50. Carre F, Lessard Y, Coumel P et al. Spontaneous arrhythmias in various models of cardiac hypertrophy and senescence of rats. A Holter monitoring study. *Cardiovasc Res.* 1992;26:698-705.
- 51. Catuli D, Maison-Blanche P, Fayn J et al. [Analysis of frequency-dependence of ventricular repolarisation by the Holter method in young adults. Influence of the autonomic nervous system on the rate-dependence of QT]. *Arch Mal Coeur Vaiss*.

- 52. Cauchemez B, Peirano P, Samson-Dolfus D et al. [The autonomic nervous system in sudden infant death syndrome. Analysis of heart rate and sinusal variability on Holter monitoring of infants who died]. *Arch Mal Coeur Vaiss*. 1989;82:745-752.
- 53. Coumel P, Thomas O, Leenhardt A. Holter functions of the implantable cardioverter defibrillator: what is still missing? *Pacing Clin Electrophysiol*. 1995;18:560-568.
- 54. Coumel P. Diagnostic and prognostic values and limitations of Holter monitoring.
- 55. Coumel P, Zimmermann M. [Value of Holter monitoring in the understanding of arrhythmias]. *Schweiz Rundsch Med Prax.* 1986;75:1085-1089.
- 56. Coumel P, Milosevic D, Rosengarten M et al. [The theoretical and practical advantage of Holter's monitoring in sino-auricular block (author's transl)]. *Ann Cardiol Angeiol (Paris)*. 1980;29:19-22.
- 57. Extramiana F, Tavernier R, Maison-Blanche P et al. [Ventricular repolarization and Holter monitoring. Effect of sympathetic blockage on the QT/RR ratio]. *Arch Mal Coeur Vaiss*. 2000;93:1277-1283.
- 58. Leclercq JF, Maisonblanche P, Cauchemez B et al. Respective role of sympathetic tone and of cardiac pauses in the genesis of 62 cases of ventricular fibrillation recorded during Holter monitoring. *Eur Heart J.* 1988;9:1276-1283.
- 59. Leclercq JF, Coumel P, Maison-Blanche P et al. [Mechanisms determining sudden death. A cooperative study of 69 cases recorded using the Holter method]. *Arch Mal Coeur Vaiss*. 1986;79:1024-1033.
- 60. Leclercq JF, Maison-Blanche P, Cauchemez B et al. [Block of the atrioventricular trunk: diagnosis of the site by Holter monitoring]. *Arch Mal Coeur Vaiss*. 1985;78:1781-1786.
- 61. Leclercq JF, Coumel P. [Detection of rhythm and conduction disorders by long-term electrocardiographic recording. Holter technic]. *Nouv Presse Med.* 1982;11:17-19.
- 62. Locati EH, Maison-Blanche P, Dejode P et al. Spontaneous sequences of onset of torsade de pointes in patients with acquired prolonged repolarization: quantitative analysis of Holter recordings. *J Am Coll Cardiol*. 1995;25:1564-1575.

- 63. Lupoglazoff JM, Denjoy I, Berthet M et al. [T wave abnormalities on Holter monitoring of congenital long QT syndrome: phenotypic marker of a mutation of LQT2 (HERG)]. *Arch Mal Coeur Vaiss*. 2001;94:470-478.
- 64. Lupoglazoff JM, Denjoy I, Berthet M et al. Notched T waves on Holter recordings enhance detection of patients with LQt2 (HERG) mutations. *Circulation*. 2001;103:1095-1101.
- 65. Molnar J, Weiss JS, Rosenthal JE. Does heart rate identify sudden death survivors? Assessment of heart rate, QT interval, and heart rate variability. *Am J Ther*. 2002;9:99-110.
- 66. Molnar J, Zhang F, Weiss J et al. Diurnal pattern of QTc interval: how long is prolonged? Possible relation to circadian triggers of cardiovascular events. *J Am Coll Cardiol*. 1996;27:76-83.
- 67. Molnar J, Weiss J, Zhang F et al. Evaluation of five QT correction formulas using a software-assisted method of continuous QT measurement from 24-hour Holter recordings. *Am J Cardiol*. 1996;78:920-926.
- 68. Yanaga T, Adachi M, Sato Y et al. Computer analysis of Holter electrocardiogram. Fukuoka Igaku Zasshi. 1994;85:282-286.
- 69. Berger RD, Kasper EK, Baughman KL et al. Beat-to-beat QT interval variability: novel evidence for repolarization lability in ischemic and nonischemic dilated cardiomyopathy. *Circulation*. 1997;96:1557-1565.
- 70. Molnar J, Zhang F, Weiss J et al. Diurnal pattern of QTc interval: how long is prolonged? Possible relation to circadian triggers of cardiovascular events. *J Am Coll Cardiol*. 1996;27:76-83.
- 71. Press WH, Teukolsky SA, Vetterling WT et al. Numerical Recipes in C:The Art of Scientific Computing. 2nd ed. Cambridge, UK: Cambridge University Press, 1994.